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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/681,802	10/08/2003	Pierre-Louis Vidal	P10-1488 US	6634

21839 7590 08/07/2007
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POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER	
FISCHER, JUSTIN R	

ART UNIT	PAPER NUMBER
1733	

MAIL DATE	DELIVERY MODE
08/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/681,802	Applicant(s) VIDAL, PIERRE-LOUIS	
	Examiner Justin R. Fischer	Art Unit 1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 July 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,8-10 and 12-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8-10 and 12-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 27, 2007 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-6, 8-10, and 12-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Penot (FR 0001012) and further in view of Nakajima (JP 07102115). It is initially noted that US 6,951,897 is the United States equivalent of the above noted French disclosure and is being supplied/referenced to facilitate the description of said French disclosure. The references are applied in the same manner as set forth in the Final Rejection mailed on February 22, 2007.

Penot discloses a rubber composition useable in the manufacture of tires, wherein said composition comprises diene elastomers, inorganic fillers, and a specific silane polysulfide (coupling agent) (Abstract). In this instance, Penot expressly teaches that the particular silane polysulfide provides an optimum connection between the diene elastomer and the inorganic filler, while improving processing (Column 2, Lines 15-20). It is emphasized that the reference generically discloses the use of a rubber composition having the above noted coupling agent in the manufacture of tires. One of ordinary skill in the art at the time of the invention would have found it obvious to use such a composition (i.e. one having the disclosed and claimed coupling agent) to form a tire belt since the above noted benefits would be desired in the manufacture of all tire components. It is further noted that such general compositions (those having diene elastomers, inorganic fillers, and coupling agents) are commonly used in the manufacture of tire belt plies, as shown for example by Nakajima (JP 07102115). Thus, absent any conclusive showing of unexpected results, one of ordinary skill in the art at the time of the invention would have been amply motivated to use the composition of Penot (those having the claimed polysulfide coupling agent) to form a tire belt ply.

Regarding claims 5, 6, 9, and 10, Penot expressly teaches a silane polysulfide having the claimed formula (Column 10, Lines 5-60). In particular, the first formula listed in Lines 15-20 discloses a composition in which R1 is preferably a methyl, R2 is preferably a C1-C8 alkoxy group, and A is preferably propylene (Column 10, Lines 40-45). These formulas are seen to constitute the claimed bis-monoalkoxydimethylsilylpropyl polysulfides.

As to claim 8, “Z” (A of reference) is preferably described as being propylene (Column 10, Lines 34-40).

Regarding claims 12-14, Tardivat suggests that the coupling agent is formed of at least two sulfide links (Column 10, Lines 10-15 and Lines 40-45).

With respect to claim 15, the listed isoprene elastomers are suggested by Penot and are consistent with the compositions used in a wide variety of tire components, include the belt. It is further noted that the exemplary belt composition detailed by Nakajima is formed with natural or isoprene rubber.

Regarding claims 16-21, the disclosed ranges are consistent with the common loadings used in tire compositions, as shown for example by Penot (Column 9, Lines 10+) and Nakajima.

As to claims 22 and 23, it is well known and conventional to include carbon black and silica in tire belt compositions, as shown for example by Nakajima (also disclosed by Penot- Column 9, Lines 15-20). Absent any conclusive showing of unexpected results, one of ordinary skill in the art at the time of the invention would have found it obvious to use the claimed loadings as they are consistent with the common compositions used in the manufacture of nearly all tire components, including tire belts.

With respect to claims 24 and 25, as noted above, the reference generally discloses the use of a rubber composition having the claimed silane coupling agent in vehicle tires. Absent any conclusive showing of unexpected results, one of ordinary skill in the art at the time of the invention would have found it obvious to use such a composition in all vehicle tires, including heavy-duty tires, as the disclosed benefits are generally desired in the tire industry.

Regarding claim 26, the method of Penot includes multiple thermochemcially kneading steps separated by a cooling step (Column 14, Line 58 – Column 15, Line 30).

Response to Arguments/Amendment

4. Applicant's arguments filed July 27, 2007 have been fully considered but they are not persuasive. It is initially noted that the Declaration under 37 CFR 1.132 filed July 27, 2007 is insufficient to overcome the rejection of claims 1-6, 8-10, and 12-26 based upon Penot and Nakajima as set forth in the last Office action (will be discussed in combination with applicant's arguments due to the overlap in subject matter).

Applicant initially argues that Penot is directed to a tread composition or "external mix" and one of ordinary skill in the art at the time of the invention would not have found it obvious to use such a teaching to modify a belt composition or "internal mix). The examiner respectfully disagrees. As detailed extensively in Penot, the reference is generally directed to the inclusion of a specific coupling system (having the claimed coupling agent) in tire rubber compositions (Abstract and Column 4, Lines 5-8 and 14-36). In particular, the above noted coupling system is described as providing improved processing and improved reinforcement due to an optimized connection between the rubber matrix and the inorganic filler material- such a benefit is highly desirable in all tire rubber compositions and as such, one of ordinary skill in the art at the time of the invention would have been amply motivated to form a belt composition with the coupling system of Penot. It is further noted that while Penot does mention the manufacture of a tread composition, it is clearly evident that the reference is more generally directed to the inclusion of a specific coupling system in all tire rubber compositions. One of ordinary skill in the art at the time of the invention would have recognized the express disclosure of Penot as being exemplary.

Applicant further argues that the disclosed tire rubber compositions in Penot (Tables 1, 3, 5, 7, 9, and 11) comprise synthetic elastomers, such as SBR and BR, while the claim requires a rubber composition comprising a natural or isoprene rubber. However, as detailed above, Penot is more broadly directed to tire rubber compositions and one of ordinary skill in the art at the time of the invention would have been motivated to form a belt composition in accordance to conventional belt compositions. As exemplified by Nakajima, belt compositions are commonly formed with a natural or isoprene rubber. It is further noted that Penot even describes the general use of a wide variety of elastomers/rubbers, including those based on natural or isoprene rubber (Column 7, Lines 35-50). Thus, given the general teaching of Penot, one of ordinary skill in the art at the time of the invention would have found it obvious to form a belt composition with the claimed coupling system and in such an instance, one of ordinary skill in the art at the time of the invention would have found it obvious to form said belt composition with conventional base components, such as a natural or isoprene rubber.

Lastly, with respect to the results, they are not found to be persuasive. Penot expressly recognizes the use of monoalkoxysilanes and thus, Table 1 simply compares two of the three coupling agents described by Penot. It is emphasized that the coupling agents of Penot can only be one of three general types: monoalkoxysilanes, bialkoxysilanes, or trialkoxysilanes. It is agreed that within each of the three types of coupling agents, there are a wide number of possible compositions. **A better showing**

of unexpected results might be a comparison of a preferred monoalkoxysilane with additional monoalkoxysilanes that are outside the scope of the invention.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R. Fischer** whose telephone number is **(571) 272-1215**. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Justin R Fischer
Primary Examiner
Art Unit 1733
Justin Fischer

JRF
July 31, 2007